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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,253	10/05/2004	Antonius Hendricus Maria Holtslag	NL 020262	5106
24737 7590 11/13/2007 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			EXAMINER PHAM, TAMMY T	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 11/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/510,253	HOLTSLAG ET AL.	
	Examiner	Art Unit	
	Tammy Pham	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-13 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 1-13 in the reply filed on 3 October 2007 is acknowledged. This is found persuasive and the requirement is withdrawn. Claims 1-13 are considered below.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show of "*the main part having a duration longer than a formative time lag (claim 1, lines 7-8),*" as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “*the main part having a duration longer than a formative time lag (claim 1, lines 7-8),*” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claims 10-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-8, 12-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakamura et al. (US Patent No: 6,784,857 B1).

9. **As for independent claim 1**, Nakamura teaches of a plasma display apparatus (Fig. 5) comprising: a plasma display panel (Fig. 5, item 15) with first and second electrodes (Fig. 5, items Su1-Sum) associated with plasma cells (Fig. 5, item 16), and a waveform generator (Fig. 8) coupled between the first and the second electrodes (Fig. 5, items Su1-Sum) for supplying, across the plasma cells (Fig. 5, item 16), a voltage (Fig. 7, item Wc) with slopes comprising a main part (Fig. 7, sections a-b and d-e) and a minor part (Fig. 7, sections b-c and e-f) succeeding the main part (Fig. 7, sections a-b and d-e), the main part (Id.) having a duration longer than a formative time lag (Fig. 7, section starting with b and section ending with the point between b and c, labeled as “voltage drop due to discharge”) of the plasma cells (Fig. 5, item 16), and the minor part (Fig. 7, sections b-c and e-f) having a smaller amplitude (Fig. 7) than the main part (Fig. 7, sections a-b and d-e), wherein the plasma cells (Fig. 7, sections b-c and e-f) are ignited and sustained by the minor part (Fig. 7, sections b-c and e-f, column 11, lines 61-63).

10. **As for claim 2**, Nakamura teaches that the waveform generator (Fig. 8) is adapted to generate the main part (Fig. 7, sections a-b and d-e) which is sine-wave shaped (Fig. 7, item Wc).

11. **As for claim 3**, Nakamura teaches that the waveform generator (Fig. 8) is adapted to generate the main part (Fig. 7, sections a-b and d-e) which comprises substantially one quarter of a sine-wave period (Fig. 7, period of Wc, column 12, lines 54-56) lasting 2 times the formative

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time lag (Fig. 7, section starting with b and section ending with the point between b and c, labeled as “voltage drop due to discharge”).

12. **As for claim 4**, Nakamura teaches that the waveform generator is adapted to generate the main part (Fig. 7, sections a-b and d-e) to form a substantially continuous sine wave (Fig. 7, item Wc).

13. **As for claim 5**, Nakamura teaches that the waveform generator (Fig. 8) is adapted to generate the main part (Fig. 7, sections a-b and d-e) which comprises substantially one quarter of a sine-wave period (Fig. 7, period of Wc, column 12, lines 54-56) lasting 2 times the formative time lag (Fig. 7, section starting with b and section ending with the point between b and c, labeled as “voltage drop due to discharge”).

14. **As for claim 6**, Nakamura teaches that the waveform generator (Fig. 8) comprises: a first waveform generator (Fig. 8, consisting of mainly items T60, D61, and surrounding circuitry) for generating an alternating voltage (Fig. 8, the main part's slope has alternating slopes from section a-b and section d-e) having slopes comprising the main part (Fig. 7, sections a-b and d-e, column 12, lines 13-18), a second waveform generator (Fig. 8, consisting mainly of item T41 and surrounding circuitry) for generating a pulse voltage having slopes comprising the minor part (Fig. 7, sections b-c and e-f, column 12, lines 27-30), and a combining circuit (inherent since the totality of the sustaining voltage consist of both the main and minor part) for algebraically

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adding the alternating voltage and the pulse voltage to supply the sustain voltage (Fig. 7, item Wc).

15. **As for claim 7**, Nakamura teaches that the first waveform generator (Fig. 8, items T60 and D61) comprises an energy recovery circuit (Fig. 8) having switches (Fig. 8, items D60-61) and an inductance (Fig. 8, item L60) to form a resonant circuit (Fig. 8) with a panel capacitance (Fig. 8, item Cp) of the plasma panel (Fig. 8, item 16) during the slopes of the alternating voltage (Fig. 7, sections a-b and d-e), the inductance (Fig. 8, item L60) having a value to obtain a duration of the slopes longer than the formative time lag (Fig. 7, section starting with b and section ending with the point between b and c, labeled as “voltage drop due to discharge”).

16. **As for claim 8**, Nakamura teaches that the energy recovery circuit (Fig. 8) comprises a timing circuit (inherent) for controlling the switches (Fig. 8, items D60-61) to couple the panel capacitance (Fig. 8, item Cp) to a supply voltage before a resonance current through the inductance (Fig. 8, item L60) becomes zero (inherent, because if the inductance becomes zero then there is no magnetic flux and hence the inductor is unable to supply a voltage).

17. **As for claim 12**, Nakamura teaches that the second waveform generator (Fig. 8, consisting mainly of item T41 and surrounding circuitry) is adapted to generate a pulse voltage which is a substantially rectangular pulse (Fig. 7).

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18. **As for claim 13**, Nakamura teaches that the second waveform generator (Fig. 8, consisting mainly of item T41 and surrounding circuitry) comprises an energy recovery circuit (Fig. 8) with an inductor (Fig. 8, item L60) with a value selected to obtain a duration of edges of the pulse voltage (Fig. 7, edges of sections b-c) being less than the formative time lag (Fig. 7, section starting with b and section ending with the point between b and c, labeled as “voltage drop due to discharge”).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. (US Patent No: 6,784,857 B1).

20. **As for claim 9**, Nakamura fails to teach that the energy recovery circuit comprises a load arranged in parallel with the inductance.

21. Examiner takes official notice that it is well known in the art to include a load in parallel with the inductor.

22. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include a load in parallel with the inductor in order to have more resistance (“extra losses (Specification, section [0016])”) so that the circuit is able to attain the desired value. For evidentiary evidence, please refer to Broyde (US Patent No: 4,794,353).

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammy Pham whose telephone number is (571) 272-7773. The examiner can normally be reached on 8:00-5:30 (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TP
31 October 2007


Tammy Pham
Patent Examiner
Art Unit 2629


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SUPERVISORY PATENT EXAMINER